

The "Fordson"

A Tractor that will revolutionize farming and help win the war, by doing the work of thousands of men loaned to Uncle Sam.

AN EFFICIENT MOTIVE POWER THAT COMBINES EFFICIENCY WITH RELIABILITY AT A LOW FIRST COST.

The FORDSON is a TRULY Universal Tractor

Twenty-two Horse-Power at the PULLEY at 1000 R. P. M. PULLEY POWER is operated from the ENGINE CLUTCH

Man'd by HENRY FORD & SON, Inc.

MORE POWER FARMING MEANS MORE POWER FOR FREEDOM

THE "FORDSON" TRACTOR is the result of extensive trials and experiments conducted by Mr. Henry Ford, covering a period of many years. Before placing the tractor on the market, every detail has been thoroughly tried out under actual farming conditions in various parts of this country and abroad. Experience has pointed to the small, light tractor as being the one machine which will fill all varying conditions satisfactorily.

In developing the "FORDSON" Tractor, the aim has been to produce a small tractor which will be low in first cost, reliable, and above all—efficient.

Being small, light and economical, the "FORDSON" Tractor is adapted for use on small farms, as well as on the largest. It will pull all farm implements and do the work generally done by horses on a farm. In addition, by its belt pulley the tractor will drive farm machinery such as a thresher, ensilage cutter, sawmill, etc., making the "FORDSON" a truly universal tractor.

In design and construction the "FORDSON" takes a long step in approaching the ideal tractor. The simplicity of its operation and construction will at once appeal to the farmer.

Special devices were perfected to keep out dust and dirt. All moving parts are enclosed and thoroughly lubricated. The number of lubricating points requiring attention are very few and easily gotten at.

The motor, transmission, and rear axle are assembled together, forming one rigid unit, which, combined with the three-point suspension, relieves these parts of all strain.

The absence of any frame gives accessibility to all parts for making adjustments or repairs, and allows the tractor to be taken apart in a few minutes.

The motor is of substantial design and is capable of delivering its full power continuously. It embodies features which have been used with success in other fields for many years.

PERFORMANCE

The tractor is designed as a two-plow machine and will pull two 14-inch plows in the stiffest soil. It will maintain a drawbar pull of 1800 pounds at plowing speed. In low gear a drawbar pull of 2500 pounds is obtained. The fuel consumption varies with conditions; two and one-half gallons of kerosene per acre being a fair average. The amount of ground plowed also depends on conditions; eight acres an hour would strike an average.

When used at stationary work and running at full power, at 1000 R. P. M., the fuel consumption does not exceed two and three-fourths gallons per hour. The total weight of tractor is 2700 pounds, with water and fuel tanks filled. Over-all length is 102 inches, height 55 inches and width 62 inches.

ENGINE

Four cylinder, four cycle, cylinders are cast en bloc. Cylinder bore, four inches; piston stroke five inches.

Removable Cylinder Head: This allows easy access to the valves, pistons and cylinders; the crank case is easily removed so that all interior parts of the engine may be reached without taking the tractor apart.

Horsepower: The engine develops twenty-two horsepower when running at 1000 revolutions per minute, and using kerosene.

Lubrication: Splash system; the oil circulation is maintained by the centrifugal action of the flywheel on the oil in the flywheel casing.

Thermo-Siphon System: The very large water jackets and radiator tanks used with a vertical tube radiator insure a continuous flow of water and efficient cooling. This works in connection with a belt-driven ball bearing fan.

IGNITION

Special Design Magneto, built in and made a part of the motor, used in combination with four coils and a commutator. This system is simple and reliable.

CONTROL

Steering is by bevel pinion and sector, being entirely enclosed and lubricated by oil splash. The steering wheel is located in the center of the tractor. Directly under it is the throttle lever. The spark lever is mounted on the dash. The gear shifter lever is on the left-hand side of the tractor, and the clutch pedal on the right. The seat is directly behind the steering wheel in the center of the tractor, bringing the driver within easy reach of all controls.

CLUTCH

Multiple steel disc running in oil.

THE BEST EVIDENCE IS WORK ACCOMPLISHED

Lord Northcliffe wrote in "London Times"—
"I mounted the Ford Tractor and plowed a half-mile furrow in about eight minutes, at a speed of almost four miles an hour. Any boy or girl can drive it."

VAPORIZER

The tractor is equipped with special design vaporizer, which heats the kerosene vapor, and mixing it with fresh, cool air, supplies a dry explosive mixture to the cylinders. To start the engine gasoline is used and after about one minute when the vaporizer is sufficiently heated, it is shifted to kerosene. Fuel is supplied by gravity from a twenty-one gallon overhead tank.

AIR WASHER

The air supply is drawn through water. The wear on the cylinder walls is thus greatly reduced because of all dust having been removed from the air.

TRANSMISSION

Constant mesh, selective type, three speeds forward and one reverse; all shafts run on ball bearings. Gears are made of vanadium steel and hardened. Final drive is by worm and worm wheel. All gearing is entirely enclosed and runs in oil.

DIFFERENTIAL

Four pinion bevel type and is carried on ball bearings.

REAR AXLE

Is of vanadium steel and rotates in roller bearings on the outer ends.

FRONT AXLE

"I"-beam section. Drop forging made of vanadium steel. It is attached in the center directly to the front of the engine, giving a three-point suspension to the tractor.

Front Wheels have steel spokes cast in the hub and riveted to steel rims. They are mounted on ball bearings.

WHEELS

Rear Wheels also have the spokes cast in the hub and riveted to the rims. These rims are fitted and riveted to the rims. These rims are 42 inches in diameter, 12 inches in width and are fitted with special cleats, designed to give proper traction in the field. By withdrawing a tapered bushing from the hub, the wheels are quickly removed. Wheel base is 63 inches, tread between wheels being 35 inches. The tractor will turn in a 21-foot circle.

TRACTOR SPEED

Plowing speed is 2 3-4 miles per hour; low speed 1 1-2 miles per hour; high speed 6 3-4 miles per hour; and reverse speed 2 1-2 miles per hour. This is calculated on engine speed of 1000 R.P.M.

Edw. Marshall, Milwaukee Sentinel, June 2—
"Mr. Ford is furnishing us with 7,000 Tractors which our agricultural department (a national organization) has decided is the most efficient tractor in the world."

ONTARIO, OREGON

FORD GARAGE

ERBIE HAYES
Manager Ontario Branch

VALE, ORE.

HOW SAILORS ARE TRAINED

Naval Academy at Annapolis Gives Students Most Thorough Preparation for Their Life Work.

During the Civil war the Naval academy was moved to Newport, on the historic Constitution, while its former home at Annapolis was used as a base hospital by the army, writes C. H. Foster in Scribner's. On the academy's return to Annapolis, in 1865, Vice Admiral Porter, the superintendent, instituted regular dances, or "hops," and, most important of all his reforms, the honor system, by which a midshipman's word was not to be questioned.

He also encouraged athletics in every way. In the presence of a throng of midshipmen he even boxed with one of them himself and allowed the nose of the vice admiral of the navy to be smugly tapped by his enthusiastic young opponent—in the manifold gloom of the assembly and to the shuddering horror of the old navy when it learned of this innovation.

By the end of Porter's superintendency, in 1869, the Naval academy had worked out the system followed to the present day. Since 1851 academic work has not been interrupted by three years at sea. Through drills and summer cruises practical skill and seagoing habits have been acquired without sacrificing progress in the theory and science of the naval profession. During their four years at the academy its graduates have felt its potent spell and have afterward won honor for it and themselves. The results achieved challenge comparison with those of any college, and have made a reputation second to none.

DECLARE HOUSE IS HAUNTED

British Lawmakers Positive They Have Seen Apparitions in Famous Parliament Buildings.

Those who do not believe in ghosts will be surprised to learn that several members of parliament have sworn to the presence of apparitions in the house of commons.

A prime minister, Earl Grey, declared that he saw a death's head appear three times in front of him while delivering his great speech on the introduction of the reform bill and G. Swift MacNeill also swore that he saw T. P. O'Connor sitting in his usual place in the house, while at the time the gentleman was in Ireland. Many members, too, have seen the "White Lady" walking in the corridors of the house.

The "terrace ghost" has often been said to appear. Another known as the "Big Ben" ghost is stated to appear when a member of the royal family is about to die. On December 13, 1861, December 13, 1878, and January 13, 1892, it appeared as an old man rowing a little below Westminster bridge in a rotten skiff and dashing into the terrace wall just as Big Ben commenced to peal midnight. On the following days, respectively, the prince consort, the Princess Alice and the duke of Clarence died. Guy Fawkes and Spencer Perceval are also said to haunt the house in the form of ghosts.

Sound Carried Far.
A camp cook whose only means of calling the members of his party was pounding on a pan with a knife handle was unable to make them hear when they were fishing or hunting at any considerable distance from the camp. One of the party to whom he complained thereupon made what he called a "kleepalo."

The "kleepalo" was merely a piece of well-seasoned oak plank two inches thick, six inches wide, and four feet long. Through the center he bored a hole, passed a rope through it and suspended the plank from the branch of a tree. The cook "rang" the instrument by striking it with a mallet, first on one side and then on the other.

The man who made the "kleepalo" had seen similar contrivances in small Bulgarian villages, where they are used instead of church bells to call the people to worship. A test of the instrument used by the campers showed that in ordinary weather conditions it could be heard two miles.—Manchester Union.

"Plantations"

The word plantation is used principally in the Southern states, where it originated in old slavery times to designate a farm cultivated by negroes, as a cotton plantation or a sugar plantation. In Maine it has a distinctive meaning, representing a form of government smaller than a township. In that state most of the functions of local government are performed by the town or township. In addition to 17 cities and 306 towns, Maine has 78 plantations and 131 unorganized places under the names of plantations, grants, surpluses and gores. A surplus is a small territorial division consisting of an irregular tract laid off by state authority. A gore is a triangular piece of land smaller than a surplus.

New Copper District in Canada.

A great new copper district in Arctic Canada is a possibility pointed out to the Royal Society of Arts, London, by W. Frecheville. The locality is east of Great Bear lake, along the Coppermine river, which runs north from about 65 degrees latitude to Coronation gulf, and the area may extend as far east as Bathurst inlet, and even to Victoria Island farther north. The first specimens of native copper were obtained from the Eskimos, who were using the metal in their primitive industries. Explorers have since reported finds of copper, and evidences of large deposits.

NEW PORTRAIT OF DICKENS

Engraving of Noted Author, Reverenced by Lovers of Literature, Recently Sold at Auction.

A new portrait of Dickens, hitherto unknown, not only to his friends, but even to his family, is surely a rare discovery, says Christian Science Monitor, commenting on the fact that Dickensians had the pleasure of seeing its reproduction in a recent issue of their paper. The portrait, which is a crayon drawing, is signed W. J. L., initials which are believed to stand for W. J. Linton, the famous wood engraver, the author of several pictures for "A Christmas Carol" and "The Christmas Tree."

It was from Mrs. E. Lynn Linton, W. J. Linton's wife, that Dickens bought Gashill place, but there is apparently no record that Linton ever visited Dickens there. It cannot, in fact, be determined whether this new portrait was done from life or not. It evidently has been to America at some time or other, for on the back of it appears: "New York Transfer Co., Dodd's Express, 944 Broadway, New York." The portrait was recently sold by auction in London, and is now the property of Messrs. Leggett Bros. of Chesapeake.

IN MATTERS OF EDUCATION

Question Where Authority for the Proper Conduct of Operations Should Be Rightly Placed.

Fundamentally the determining factor in educational administration becomes today one of finance. The school superintendents declare themselves unable to raise more money locally than is already furnished. The whole question of educational finance in relation to local taxation has not yet been adequately considered to determine the validity of such statements. Without going further into this problem an agitation has been begun for securing aid from the federal government. It is argued that the federal authority today is in a better position for levying taxes than is the local authority, that the nation as a whole is likely to suffer unless national measures are adopted for combating illiteracy, Americanizing the immigrant, and improving the physique of the citizens, and finally that teachers may now be regarded as performing service of national importance.—New Republic.

A Considerable Amount.

A certain little village in the West stands some distance from the nearest good supply of pure water, and Patrick is the man who transports barrels of drinking water to the homes of the village.

One day, says Chicago Herald, as Patrick halted at the top of the river bank, a man famous for his inquisitive mind stopped and asked: "How long have you hauled water for the village, my good man?" "Ten years, sor." "Ah, how many loads do you take in a day?" "From tin to fifteen, sor?" "Ah, yes! Now, I have a problem for you. How much water at this rate have you hauled in all?"

The driver of the water cart jerked his thumb backward toward the river and replied: "All the water yez don't see there now, sor."

Bird Songs.

It was the morning of June 20. I stood at the gate of the farmhouse where three roads met, and the air was full of bird songs. For a long time I stood there and tried to note how many different songs I could hear. Near by were the alto joy-notes of the Baltimore oriole. Up from the meadow where the trout flowed came the bubbling, gurgling notes of the bobolink. Robins, wood thrushes, song sparrows, chipping sparrows, bluebirds, vireos, gold finches, chebees, indigo birds, flickers, phoebes, red-winged blackbirds, scarlet tanagers, catbirds, house wrens—altogether, without moving from my place, I counted 33 different bird songs and bird notes.—Samuel Scoville, Jr., in Atlantic.

Easily Arranged.

One beautiful summer night, when the crickets were chirping in the grass and the caterpillars were dropping from the trees, John Henry turned to the charming girl who was sitting on the veranda at his side. "Edith," said he timorously, "there comes to me a thought, I might say a fear."

"Well, what is it?" queried the fair girl, as the other hesitated. "I suppose," responded John Henry, suggestively, hopefully, "that were I to steal a kiss you would have me arrested?" "Perhaps," was the ready rejoinder of the girl, "but you could find somebody to pay your fine, couldn't you?"

Discipline.

The discipline in base hospitals in France precludes social relations between nurses and enlisted men. This is occasionally carried to extremes, as evidenced by the following incident. A certain nurse was found ringing the doorbell of the officers' quarters early one morning. When asked what she wanted, she replied that the villa in which she and the other nurses were quartered was on fire. After the fire had been extinguished, she was asked why she didn't give the alarm at once, instead of running the long distance to the officers' quarters. Her reply was: "We aren't allowed to speak to enlisted men."—From the Journal of the American Medical Association.

MADE FIGHT FOR FREEDOM

British Army Deserter Showed Daring and Originality in Making His Escape From Prisons.

Three daring escapes made by a British army deserter with ten convictions against him—all for crimes of violence—were described at Oldstreet a few days ago, relates London Chronicle. The man, George Mullins, was sentenced to six months' imprisonment in January, 1917, and was sent to Wandsworth. There he was trained for the army and taken to France in handcuffs. In a few weeks he contrived to get leave and, returning to England, deserted. He was arrested June April, but, although handcuffed, he escaped from his escort. After a brief spell of liberty Mullins was again captured, and with five others was put in the guardroom at Wandsworth prison. While the others paced and sang at the top of their voices Mullins cut a hole in the wall and all the six escaped. In the following May the man was again arrested, and taken this time to Bethnal Green police station, where he was placed in a newly built cell. Again he managed to escape by loosening a number of bricks, climbing through a ventilator and dropping down a water pipe into the street. The other night Mullins was arrested by Detective Sharp in Stepney. A big and violent crowd, the officer said, gathered and pelted the detective and his colleagues with stones, weights, coal, bottles and "anything they could lay their hands on." The police, however, got away. Mullins is now sentenced to two months' hard labor as a deserter and for damaging Bethnal Green police station.

EPIGRAM THAT HAS FORCE

Terse Statement as to Value of Man in the World's Commercial Operations.

There is a moral for all who will seek it in the story of a Minnesota banker, who has made a success of life notwithstanding the handicap that both legs, his left arm and the fingers of his right hand are missing. His career was appropriately reviewed in Carry On, a magazine published in the interest of the reconstruction of disabled soldiers and sailors.

The essence of this man's success is contained in his whimsical statement of his philosophy. "From his neck down," he says, "a man is worth about a dollar and a half a day; from his neck up he may be worth a hundred thousand dollars a year." The facts of this statement apply as forcibly to a man with all his limbs as to a cripple. They constitute the chief reason why vocational education is increasing in popularity and why child labor and compulsory education laws are being made increasingly severe.

It is a fortunate epigram which has been made by this cripple of peace for the benefit of the cripples of war. The part of the man "from the neck up" knows no limitations except self-imposed ones.—Portland Oregonian.

Emotions and the Eye.

The thing we look at straightest and most steadily is the eye of the man or woman who talks to us. And no emotion changes the glistening of that eye. Yet, so unobtrusive are we all, especially descriptive novelists, that eyes, in fiction, always flash, and no doubt will always flash, under the stress of any kind of rage. The assassin of the surgeon in Paris the other day went to his deed, as we read in the fictitious part of the report of a witness, with eyes that flashed according to custom. Now the human eye has two places for flashing—one in the clear pupil, showing one point of light or more according to the light or lights reflected; the other in the white. Neither of these brightnesses depends upon the mind.

Pharaoh's Serpent's Egg Trick.

One of the most amusing tricks in fireworks is the serpent's egg trick, where a little pellet when lighted turns into a horrible snake, many, many times the size of the pellet. How awe-inspiring it is to the youngsters! Most people have no idea what in the world causes the snake to appear. The explanation is simple. Mercury sulphocyanid burns with a voluminous ash. The little pellet is nothing more than some mercury sulphocyanid. The heat causes the ash to move off so quickly from the burning pellet that it writes and distorts itself into the shape of a miniature snake.

Radium in Sea Salt.

Samples of sea salt collected during a recent voyage in the Pacific and subantarctic regions have been examined for their radium content. The amount of radium was found to be negligibly small compared with values that have been found in others collected near land, and this result is in accordance with the prevailing view that the radium content of sea salt diminishes with increase of distance from land.

Ambitious.

Nat Goodwin tells one on a convivial friend of his. "I hadn't seen him for several years, and when we met I couldn't help commenting on the brilliant redness of his nose." "John, it must have cost you a lot of money to paint your nose so richly," I remarked. "Yes, Mr. Goodwin," agreed John, beaming with pride, "and now I'm saving up to get it varnished, sir."